

AMENDMENTS TO THE CLAIMS:

Please cancel claims 1-29 without prejudice or disclaimer, and substitute the following new claims 30-58 therefor as follows:

LISTING OF CLAIMS:

1-29 (Cancelled)

30. (New) A content providing server that executes a content transmission process to a client connected via a local area network, characterized by comprising:

a tuner that executes a data reception process;

a data transmission/reception section that executes a communication process between the server and the client via the local area network for received content by said tuner and control information;

a storage section having attribute information corresponding to the received content by the tuner as content information;

a content management section that executes a process of providing said content information to the client; and

a content distribution control section that executes live streaming distribution control of the received content via said tuner to the client via the local area network,

wherein said storage section is configured to store a channel list identifier as identification information about a channel list containing at least a plurality of channels of received channels by said tuner, as content information corresponding to tuner-received content, and

wherein said content distribution control section is configured to set a plurality of tuner-received content corresponding to the plurality of channels described in said channel list as a single unit of controlled content, to execute control over content for distribution corresponding to the plurality of channels described in said channel list on the basis of a control request corresponding to the channel list identifier received from the client.

31. (New) The content providing server as described in claim 30, characterized in that:

said channel list identifier is a channel list URL (Uniform Resource Locators);

said storage section is configured to store said channel list URL as attribute information corresponding to said tuner-received content; and

said content distribution control section is configured to execute distribution control over the content on the plurality of

channels received by said tuner specified on the basis of said channel list URL according to the control request from the client.

32. (New) The content providing server as described in claim 30, characterized in that:

said channel list identifier is a channel list URL (Uniform Resource Locators);

a connection for distribution of the tuner-received content between the server and the client is an HTTP (HyperText Transport Protocol) connection set on the basis of said channel list URL; and

said content distribution control section is configured to execute content distribution which continuously uses the HTTP connection set on the basis of said channel list URL, before and after channel switching executed as switching of the plurality of tuner-received content corresponding to the plurality of channels described in said channel list.

33. (New) The content providing server as described in claim 30, characterized in that:

said content information contains content-corresponding protocol information;

protocol information set so as to correspond to the received content via the above-mentioned tuner contains a function ID as tuner identification information; and

said content distribution control section is configured to execute a process of setting a control instance that executes control over the tuner-received content as a control instance that executes control over a tuner for control which is determined on the basis of said function ID.

34. (New) The content providing server as described in claim 30, characterized in that:

said content distribution control section is configured to set a control instance that executes content distribution control over each content for distribution, to execute content-based distribution control which is based on the control instance; and

a tuner control instance that executes control over said tuner-received content is configured to execute control over said tuner on the basis of the control request from the client.

35. (New) The content providing server as described in claim 30, characterized in that:

said content distribution control section is configured to set a control instance that executes content distribution control

over each content for distribution, to execute content-based distribution control which is based on the control instance, and execute connection management which is based on a connection management table in which an instance ID as an identifier of said control instance, a connection ID as a connection identifier between the server and the client, and protocol information corresponding to the content for distribution are associated with each other.

36. (New) The content providing server as described in claim 30, characterized in that:

said content distribution control section is configured to set a control instance that executes content distribution control over each content for distribution, to execute content-based distribution control which is based on the control instance; and

said control instance is configured to have an instance ID set as an identifier, and execute the content distribution control according to a control request from the client wherein the control instance ID is designated.

37. (New) The content providing server as described in claim 30, characterized in that:

said content distribution control section is configured to receive a control request for content for distribution which is

compliant with a SOAP (Simple Object Access Control) protocol,
from the client, and execute distribution control over the tuner-
received content on the basis of said control request.

38. (New) The content providing server as described
in claim 30, characterized in that:

said channel list is configured to be set as a list
formed from the plurality of channels divided according to
categories.

39. (New) The content providing server as described
in claim 30, characterized in that:

said content distribution control section is
characterized by being configured to execute, during execution of
distribution control over content on the plurality of channels
received by said tuner specified on the basis of a channel list URL
as the identifier of said channel list, distribution of the tuner-
received content specified on the basis of the channel list URL, in
response to an HTTP-GET method received as a content request
from another client wherein the same channel list URL is
designated, through an HTTP connection which is based on said
channel list URL.

40. (New) The content providing server as described in claim 30, characterized in that:

said channel list identifier is a channel URL (Uniform Resource Locators);

a connection for distribution of the tuner-received content between the server and the client is an HTTP (HyperText Transfer Protocol) connection set on the basis of said channel list URL;

said content distribution control section is configured to determine whether or not matching of coded data for transmission to the client can be maintained even when the plurality of channels described in said channel list has been switched, and execute breakage of the HTTP connection set on the basis of said channel list URL where it is determined that the matching cannot be maintained; and

said content providing server is configured to further execute a process of notifying breakage information about the HTTP connection set on the basis of the channel list URL, via an event notification connection between the server and the client.

41. (New) The content providing server as described in claim 30, characterized in that:

said channel list identifier is a channel list URL
(Uniform Resource Locators);

a connection for distribution of the tuner-received
content between the server and the client is an HTTP (HyperText
Transport Protocol) connection set on the basis of said channel list
URL; and

said content distribution control section is configured
to execute switching of a plurality of channels described in said
channel list by tuner control at a timing when matching of coded
data for transmission to the client can be maintained.

42. (New) An information processing apparatus that
receives received content by a tuner set to a server connected via a
local area network, from the server via the local area network,
characterized by comprising:

a data transmission/reception section that executes
data transmission/reception process with respect to the server that
provides tuner-received content via the local area network; and

a control section that transmits via the local area
network a content transmission request which is based on a
channel list identifier which is an identifier of a list containing at
least a plurality of channels of received channels by said tuner, to

said server, and also executes a process of transmitting distribution control request for tuner-received content wherein a control instance that executes content distribution control is designated in said server.

43. (New) The information processing apparatus as described in claim 42, characterized in that:

said control section is configured to transmit a connection preparation request wherein a function ID as tuner identification information which is a piece of protocol information contained in content information received from said server is stored, to said server, to acquire an ID of a control instance that executes control over the tuner-received content, received from said server, and to execute a process of transmitting the distribution control request for the tuner-received content wherein said control instance ID is designated, as a response to said connection preparation request.

44. (New) The information processing apparatus as described in claim 42, characterized in that:

an identifier of said channel list is a channel list URL (Uniform Resource Locators);

a connection for distribution of tuner-received content between the server and the client is an HTTP (HyperText Transport Protocol) connection set on the basis of said channel list URL; and

said control section is configured to execute content reception before and after switching of the plurality of channels described in said channel list by continuously using the HTTP connection set on the basis of said channel list URL.

45. (New) A content transmission control method for transmitting received content by a tuner set to a content providing server, to a client via a local area network, characterized by comprising:

a control instance setting step of setting a control instance wherein tuner-received content corresponding to a plurality of channels described in a channel list containing at least the plurality of channels of received channels by said tuner is set, as a unit of content for control;

a control request reception step of receiving a control request to said control instance from the client via the local area network; and

a control step of executing tuner control by said control instance on the basis of said control request.

46. (New) The content transmission control method as described in claim 45, characterized in that:

said channel list identifier is a channel list URL (Uniform Resource Locators); and

said control instance setting step comprises a step of associating said channel list URL with the control instance.

47. (New) The content transmission control method as described in claim 45, characterized in that:

said channel list identifier is a channel list URL (Uniform Resource Locators);

a connection for distribution of tuner-received content between the server and the client is an HTTP (HyperText Transfer Protocol) connection set on the basis of said channel list URL; and

said control step is configured to execute content distribution which continuously uses the HTTP connection set on the basis of said channel list URL, before and after channel switching executed as switching of the plurality of tuner-received content corresponding to the plurality of channels described in said channel list.

48. (New) The content transmission control method as described in claim 45, characterized in that:

said content information contains protocol information corresponding to content;

the protocol information set so as to correspond to the received content via said tuner contains a function ID as tuner identification information; and

said control instance setting step is configured to execute a process of setting a control instance that executes control over the tuner-received content as a control instance that executes control over a tuner for control which is determined on the basis of said function ID.

49. (New) The content transmission control method as described in claim 45, characterized in that:

said content transmission control method further comprises a step of executing connection management which is based on a connection management table in which an instance ID which is an identifier of said control instance, a connection ID which is a connection identifier between the server and the client, and protocol information corresponding to content for distribution are associated with each other.

50. (New) The content transmission control method as described in claim 45, characterized in that:

said control request reception step is a step of receiving a control request for content for distribution compliant with a SOAP (Simple Object Access Control) protocol, from the client.

51. (New) The content transmission control method as described in claim 45, characterized in that:

said content transmission control method further comprises a step of executing, during execution of distribution control over content on the plurality of channels received by said tuner specified on the basis of a channel list URL as an identifier of said channel list, distribution of the tuner-received content specified on the basis of the channel list URL, in response to an HTTP-GET method received as a content request from another client wherein the same channel list URL is designated, through an HTTP connection which is based on said channel list URL.

52. (New) The content transmission control method as described in claim 45, characterized in that:

said channel list identifier is a channel list URL (Uniform Resource Locators);

a connection for distribution for tuner-received content is an HTTP (HyperText Transfer Protocol) connection set on the basis of said channel list URL; and

said content transmission control method further comprises a step of determining whether or not matching of coded data for transmission to the client can be maintained even when the plurality of channels described in said channel list has been switched, and executing breakage of the HTTP connection set on the basis of said channel list URL where it is determined that the matching cannot be maintained; and a step of executing a process of notifying breakage information about the HTTP connection set on the basis of the channel list URL, via an event notification connection between the server and the client.

53. (New) The content transmission control method as described in claim 45, characterized in that:

an identifier of said channel list is a channel list URL (Uniform Resource Locators);

a connection for distribution of the tuner-received content is an HTTP (HyperText Transfer Protocol) connection set on the basis of said channel list URL; and

said control step comprises a step of executing switching of the plurality of channels described in said channel list by tuner control at a timing when matching of coded data for transmission to the client can be maintained.

54. (New) An information processing method for receiving received content by a tuner set to a server, from the server via a local area network, characterized by comprising:

a content transmission requesting step of transmitting a content transmission request which is based on a channel list identifier, which is an identifier of a list containing at least a plurality of channels of received channels by said tuner; and

a control requesting step of executing a process of transmitting via the local area network a distribution control request for tuner-received content wherein a control instance that executes control over content distribution in said server, is designated.

55. (New) The information processing method as described in claim 54, characterized in that:

said content transmission request step comprises a step of transmitting a connection preparation request wherein a function ID as tuner identification information which is a piece of

protocol information contained in content information received from said server, is stored, to said server; and

said control request step comprises a step of executing a process of transmitting a distribution control request for tuner-received content wherein an ID of a control instance that executes control over tuner-received content received from said server is designated, as a response to said connection preparation request.

56. (New) The information processing method as described in claim 54, characterized in that:

said channel list identifier is a channel list URL (Uniform Resource Locators);

a connection for distribution of tuner-received content is an HTTP (HyperText Transfer Protocol) connection set on the basis of said channel list URL; and

said information processing method is configured to execute content reception before and after channel switching executed as switching of a plurality of channels described in said channel list, continuously using the HTTP connection set on the basis of said channel list URL.

57. (New) A computer program that executes a content transmission control process for transmitting received content by a tuner set to a content providing server, to a client via a local area network, characterized by comprising:

a control instance setting step of setting a control instance wherein tuner-received content corresponding to a plurality of channels described in a channel list containing at least the plurality of channels of received channels by said tuner, as a unit of content for control;

a control request receiving step of receiving a control request to said control instance from the client via the local area network; and

a control step of executing tuner control by said control instance on the basis of said control request.

58. (New) A computer program that executes an information processing process for receiving received content by a tuner set to a server, from the server via a local area network, characterized by comprising:

a content transmission requesting step of transmitting a content transmission request which is based on a channel list

identifier, which is an identifier of a list containing at least a plurality of channels of received channels by said tuner; and

a control requesting step of executing a process of transmitting via the local area network a distribution control request for tuner-received content wherein a control instance that executes control over content distribution in said server, is designated.